

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017

Subject Code:131401

Date:14/11/2017

Subject Name: Food Chemistry

Time: 10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1 (a)** Describe the classification of food proteins with suitable examples. **07**
- (b)** State various disaccharides and explain the structure and properties of any one disaccharide. **07**

- Q.2 (a)** What is dextrin? Explain the role of maltodextrin in food processing. **07**
- (b)** State various pigments found in food and write in detail about any two pigments **07**

OR

- (b)** What is effect of chemical structure of water molecule on it's properties? **07**

- Q.3 (a)** Explain chemical properties of proteins **07**
- (b)** What is polyols? Explain how polyols are useful in foods. **07**

OR

- Q.3 (a)** Write in detail the importance of water activity in food. **07**
- (b)** Describe the criteria to select the food additives to be used in processed food products. **07**

- Q.4 (a)** Define food additives and explain the various functions of food additives. **07**

(b) Enlist various methods moisture estimation and explain any one. **07**

OR

Q.4 (a) What are the class-I and class-II preservatives? Explain class-II preservatives **07**

(b) Write in detail about simple lipids. **07**

Q.5 (a) State the role of following food additives. **07**

a. Leavening agent b. Anticaking agent

(b) Differentiate between saturated and unsaturated fatty acids. Write in detail about essential fatty acid **07**

OR

Q.5 (a) Write the detail classification of carbohydrate with suitable examples. **07**

(b) Describe the phenomena of protein gel formation with it's supporting theories **07**